

NOTES FROM THE BOTANIC GARDENS, SYDNEY.

No. 8.

By J. H. MAIDEN AND E. BETCHE.

STERCULIACEÆ.

KERAUDRENIA HILLII, F.v.M. (*Seringea Hillii*, F.v.M., in Census.)

Jennings (J. L. Boorman; October, 1901). A new locality for a rare plant. According to the collector it is a shrub about 6 to 8 feet high, with large blue flowers (not purplish as described in Moore and Betché's 'Handbook of the Flora of New South Wales,' from old specimens), growing on dry ridges amongst boulders, about half a mile from the Queensland border.

The genus *Keraudrenia* is confined to Australia with the exception of a single species which occurs in Madagascar. This Madagascar plant is, according to Mueller's 'Census,' identical with *K. Hillii*. It seems extraordinary that a rather local Australian plant should recur alone in Madagascar, but we have no means of verifying Mueller's statement. We observe (Proc. Linn. Soc. xx., 104) that Madagascar also possesses one species of *Rulingia* (also a Sterculiaceous genus), all the other *Rulingias* being natives of Australia.

RUTACEÆ.

ASTEROLASIA CORREIFOLIA, Benth., var. MOLLIS (Syn. *A. mollis*, Benth.)

Warrumbungle Ranges (W. Forsyth; October, 1899 and 1901).

The specimens collected by Mr. Forsyth in the Warrumbungle Ranges differ from Bentham's description of *A. mollis*, made from specimens collected by Fraser more than half a century previously in the same locality (called Arbutnot Range at that time), in the lobed ovary and in the long pedicels. The discrepancy in the

length of pedicels is easily explained by the fact that Bentham had seen no fruits, and the pedicels in this species are very variable in length, and lengthen out with the maturing fruit. In some of last year's fruiting-specimens from the Warrumbungle Ranges, the pedicels are nearly 1 inch long, while some specimens, collected two years previously in the same locality, have the young flowers on pedicels often under $\frac{1}{4}$ of an inch long. The discrepancy in the shape of the ovarium (Bentham describes it as "rounded at the top") cannot be explained by simple variation, and it is difficult to believe that a trained observer like Bentham should have made such a mistake. Perhaps Bentham had such young flowers under observation that the lobes were scarcely formed. The ripe carpels of Mr. Forsyth's specimens are beaked like those of *A. correifolia*, which proves that the young carpels in the ovarium are also lobed.

Unfortunately the type specimens are not in Australia, so that we can only surmise that Fraser's and Forsyth's specimens are identical, without being absolutely certain.

Mueller unites *A. correifolia*, Benth., and *A. Muelleri*, Benth., under the name of *Eriostemon correifolius*. We propose now to go a step further and include *A. mollis* in the variations of *A. correifolia*. Bentham separates *A. mollis* from *A. correifolia* and *Muelleri* on account of the lobed stigma and the rounded ovarium; but we find both very unreliable characters in this section of the genus. In *A. mollis* the stigma is distinctly lobed, while scarcely lobed in *A. correifolia*; but in *A. Muelleri* the stigma seems so variable that we can only describe it as "more or less distinctly lobed or almost entire." The true *A. correifolia* is so variable in shape and size of leaves, indumentum, and length of pedicels that both *A. Muelleri* and *A. mollis* cannot be maintained as separate species if the character of stigma and ovarium are proved to be variable.

The chief characteristics of the three forms of *A. correifolia* are :—

NORMAL FORM.—Leaves glabrous above. *Flowers* white. *Stigma* entire, or nearly so.

Var. MUELLERI.—*Leaves* tomentose on both sides. *Flowers* yellow. *Stigma* more or less lobed, or nearly entire.

Var. MOLLIS.—*Leaves* tomentose on both sides. *Flowers* white. *Stigma* distinctly lobed.

PHEBALIUM RALSTONI, Benth.

Warrumbungle Ranges (W. Forsyth; October, 1901).

Previously recorded only from the Southern Dividing Range. The Warrumbungle Ranges specimens are unfortunately only in fruit, but they resemble so closely Dr. Leichhardt's type-specimens from Castle Rock Mountain (a locality whose situation we do not know) that we do not hesitate to refer them to this species. They differ from Bentham's description in the 'Flora Australiensis' in the prominent beak of the ripe carpels and in the stellate tomentum on the young branches, which occurs sparingly also on the underside or the young leaves.

RHAMNACEÆ.

STENANTHEMUM SCORTECHINII, F.v.M. (*Cryptandra Scortechinii*, F.v.M., in Censur.)

Jennings (J. L. Boorman; October, 1901). A new locality for a rare plant. This shrub grows 5 to 6 feet high in rich alluvial soil on the side of a creek. The Jennings specimens are entirely identical with Mueller's type-specimens from the Severn River. Other New South Wales localities, representing a rather narrow-leaved form, are :—Head of Macleay River, open sandy ground (Carron; between 1860 and 1870); Braidwood (W. Bäuerlen; 1888); Bermagui (W. Bäuerlen, 1889); Apsley Falls, Walcha district (E. Betché; December, 1898).

SAPINDACEÆ.

DODONÆA PEDUNCULARIS, Lindl., var. HIRSUTA, var. nov.

Jennings (J. L. Boorman; October, 1901). A very handsome bushy shrub attaining about 2 feet in height, with short broad cuneate, rather crowded leaves, deeply 3-toothed at the truncate end; growing in rich alluvial soil on the banks of a creek. It

differs from the type chiefly in the absence of all viscosity; and in the short spreading hairs, which densely cover the whole plant, except the old branches. The capsules attain fully $\frac{3}{4}$ of an inch in breadth. Male flowers not seen. Though Bentham describes the species as glabrous, we find the tendency to hairiness in several specimens, amongst others in Mitchell's specimens collected at Mt. Pluto near the Warrego River, and described by Lindley in Mitchell's 'Tropical Australia,' p. 342, as *E. pubescens*. Bentham's remark in the 'Flora Australiensis' in regard to *D. pubescens*, "the supposed pubescence is apparently a mistake," shows that he cannot have seen the type specimens, for Major Mitchell's specimens are distinctly hairy, though viscid, sparse-leaved, and with all the characteristics of a plant grown in dry country, very different in appearance from the luxuriant hirsute form found by Mr. Boorman at Jennings.

LEGUMINOSÆ.

OXYLOBIUM PULTENÆA, DC.

Hastings River (W. Best, communicated by W. Forsyth; August, 1901). Most northern locality recorded.

PULTENÆA PLUMOSA, Sieb.

Bombala (J. H. Maiden; November, 1901).

A rather rare *Pultenæa*, confined to New South Wales. Bentham gives its habitat as "Port Jackson to the Blue Mountains." Since then many additional localities have been discovered within the borders of New South Wales. The most northern locality known to us is Apsley Falls, in the Walcha district, and its southern limit has now been extended to Bombala.

PSORALEA ERIANTHIA, Benth.

Paldrumatta Bore, on sandy ridges (P. Corbett; October, 1901).

A rare plant in New South Wales, though with extensive range in Central Australia. A sparingly branched erect shrub about 3 to 4 feet high, densely covered with a soft tomentum of white hairs, especially long on the calyces. The flowers are white, with

a dark almost black keel, the standard and wings often (not always) striped with blue. The Paldrumatta Bore specimens are much more hairy than Mitchell's prostrate type-specimens from the Balonne River, Queensland.

ACACIA RHIGIOPHYLLA. F.v.M.

West Wyalong (R. H. Cambage; September, 1900).

New for New South Wales. Previously only recorded from the desert on the Lower Murray River towards Mt. Barker Range in South Australia.

ACACIA HARPOPHYLLA, F.v.M.

Marsden (R. H. Cambage; September, 1900).

The trees attain a height of 20 to 30 feet, according to Mr. Cambage, and cover about 5 acres, $3\frac{1}{2}$ miles west of Marsden. The most southern locality hitherto recorded is Coolabah.

HALORAGÆ.

MYRIOPHYLLUM PEDUNCULATUM, Hook. f.

Mt. Wilson (Jesse Gregson; December, 1901, in flower; February, 1902, in fruit).

A southern species, recorded in these Proceedings in April, 1899, as "new for New South Wales" from Mt. Kosciusko, but never found, or at all events recorded, north of this station. The floating specimens from Mt. Wilson have long and slender stems with leaves above 1 inch long; specimens growing in mud are shorter, and resemble much more the Tasmanian specimen figured by J. D. Hooker in his 'Flora of Tasmania' (Vol. i. t. 23 b.). The male flowers are very shortly pedunculate or sessile; the carpels are only sparingly tuberculate.

MYRTACEÆ.

BAECKEA DIFFUSA, Sieb.

Port Macquarie (G. R. Brown; February, 1897); Hastings River (W. Best, communicated by W. Forsyth; August, 1901).

Most northern locality recorded.

UMBELLIFERÆ.

ACTINOTUS FORSYTHII, sp. nov.

Blackheath, Blue Mountains (W. Forsyth; February, 1902).

An ascending much-branched annual or biennial attaining about 1 foot in height, with somewhat striate, terete, rather wiry stems, sparingly covered with appressed hairs. Leaves $\frac{1}{2}$ to 1 inch long, glabrous on both sides or nearly so, generally twice ternately divided, the segments often again lobed or toothed, the ultimate lobes tending to linear-lanceolate, acute, with recurved or thickened margins, the radical ones and lower stem-leaves on petioles often above 1 inch long, the upper ones gradually more sessile and less divided. Umbels on long slender peduncles. Involucre radiating to 1 inch in diameter in the largest umbels seen; the bracts lanceolate, acute, about 12 in number, densely hairy inside with long white silky hairs, nearly glabrous outside, often brownish and conspicuously 1- or 3-veined. Flowers numerous, on slender glabrous pedicels, a few of the outer ones often male, without any ovary; rarely the males are in several rows at the circumference. Calyx limb truncate or sinuate-lobed, glabrous. Petals small, spathulate, on slender claws. Stamens on slender filaments with violet anthers. Fruit densely ciliate on the edges with long white hairs, the flat sides glabrous and dark brown when ripe, with a prominent rib along the centre.

In affinities it is more closely allied to the beautiful West Australian *A. leucocephalus* than to any of the East Australian species of *Actinotus*, though its general appearance is more like a large flowered form of our modest *A. minor*. It is the only East Australian *Actinotus* with petals, and has also a truncate calyx in common with *A. leucocephalus*, but differs from this species chiefly in the fruit, apart from the more striking but less essential difference of size, length of involucre bracts, and indumentum. Like *A. Gibbonsii* it has a peculiar fruit with densely ciliate edges and glabrous carinate sides, but nothing else in common with this species.

COMPOSITÆ.

OLEARIA LEPIDOPHYLLA, Benth.

Emmaville (J. L. Boorman; October, 1901).

The most northern locality recorded. A common plant in the southern colonies and southern districts of New South Wales; the present note brings its range up to the Queensland border.

OLEARIA ADENOPHORA, F.v.M.

At the Gap, near Cobborah (W. Forsyth; October, 1901).

The most northern locality for a plant rare in New South Wales, though more common in Victoria.

CASSINIA LEPTOCEPHALA, F.v.M.

Warrumbungle Ranges (W. Forsyth; October, 1901).

The locality "Port Jackson" given in Benthams's 'Flora Australiensis' seems to be a mistake. Mueller gives the very vague locality "Nova Austro-Cambria" in his original description (Fragm. iii, 138), though he gives "Port Jackson" on his herbarium label. This herbarium label probably misled Benthams, and the mistake was copied by Dr. Woolls in his 'Plants of the Neighbourhood of Sydney,' and in Moore and Betches's 'Handbook of the Flora of New South Wales.' We have never heard of this species having been collected in the Port Jackson district, and as this district is naturally the best explored one in the State, it is scarcely probable that such a prominent plant should have escaped notice; besides the whole appearance of the plant is that of an inhabitant of dry mountain ranges.

Other authenticated localities of the species in the Herbarium are:—Moonan Brook, Upper Hunter; and Upper Hastings River (ascent to tableland; J. H. Maiden).

EPACRIDÆ.

LEUCOPOGON EXOLASIUS, F.v.M.

Woronora River (E. Cheel; October, 1901).

The only locality recorded is "near Camden," where it was collected by Dr. Leichhardt in 1843. It is perhaps too closely

allied to *L. setiger*, R.Br., to be separated from it as a species, but we would like to further study the variations of that species before proposing a change.

MONOTOCA LEDIFOLIA, A. Cunn.

Woronora River (E. Betcher; January, 1894: E. Cheel; October, 1901).

Previously only recorded from the Blue Mountains, but apparently not uncommon at the head waters of the coastal rivers in the Port Jackson sandstone district.

SOLANACEÆ.

ANTHOCERCIS SCABRELLA, Benth.

Wallangarra (J. L. Boorman; October, 1901),

A rare plant, previously only recorded from a single locality, viz., "Nepean River in the Blue Mountains." In the Wallangarra locality it is a much spreading and intricately branched shrub not above 2 feet high, growing on sparsely timbered dry rocky hill sides. The peduncles are shorter than in the type and often apparently axillary, though in reality terminal on very short branchlets in the axils of the leaves. In the Nepean River locality (J. H. Maiden has collected it at Erskine Creek, Nepean River, 10 miles from Penrith) the shrub is about 3 to 4 feet high, with considerably longer filiform peduncles.

VERBENACEÆ.

GMELINA LEICHHARDTII, F.v.M.

Botanic Gardens, Sydney (cultivated, April, 1902).

This is the first time that we have noticed ripe fruits on the tree in the Gardens; and as the fruits are not described in the 'Flora Australiensis' we give a short description of them:—Fruits of a dull mauve, almost blue colour, somewhat depressed-globular, nearly 1 inch in diameter; always provided with the persistent flattened out and enlarged calyx.

LAURINEÆ.

LITSEA RETICULATA, Benth. (*Tetranthera reticulata*, Meissn.).

Wyong (J. L. Boorman; February, 1900).

Recorded in the 'Flora Australiensis' only from Queensland.

It has been long known to be not uncommon in the northern brush-forests of New South Wales (see a note by one of us in Agric. Gazette of N.S. Wales, Vol. v. [1894], p. 826), and now its range has been traced as far south as Wyong.

PROTEACEÆ.

BANKSIA ERICIFOLIA, Linn. f.

Byron Bay (A. H. Hammond; April, 1902).

Most northern locality recorded for New South Wales, the Hastings River being hitherto the most northerly record for this State. It is, however, admitted by F. M. Bailey in his 'Queensland Flora,' with the note: "Recorded for Queensland by F.v.M. without locality."

THYMELEÆ.

PIMELEA LIGUSTRINA, Labill., var. GLABRA, var. nov.

Kiandra District (fruiting specimens; E. Betcher, February, 1897), Kiandra District (flowering specimens; W. Forsyth, December, 1901).

A small bushy shrub about 18 inches high, with crowded erect oblong leaves from 5 to 8 lines long. Flower-heads nodding, with 6 to 8 large involucre bracts glabrous inside, and of a purplish cast when in fruit. Receptacle glabrous. Persistent base of the calyx glabrous from the first, on short glabrous stalks; calyx-tube glabrous, the lobes generally sparingly hairy.

Bentham's type-specimens of var. *macrostegia*, collected by Waterhouse in sandy scrub in Kangaroo Island, differ from the Kiandra specimens only in the hairy receptacle, and possibly in the size of the shrub, which is not stated by Waterhouse. Perhaps our new variety should be a distinct species, but we are not sure whether the absence of hairs on the involucre bracts

and receptacle is constant. The alpine forms of var. *hypericina* have frequently coloured bracts and a tendency to nodding flower-heads, and approach the new Kiandra form closely in habit.

URTICACEÆ.

FICUS HENNEANA, Miq.

National Park, Port Hacking (M. Bell; February, 1900: J. L. Boorman; January, 1902).

New for New South Wales. It seems very strange that a *Ficus* described from specimens collected on the barren Booby Island in Torres Strait (about 10° S. lat.), and not recorded further south than Rockingham Bay, Queensland, should recur again in Port Hacking, near Sydney; but we have no doubt about the correctness of the identification. The Port Hacking specimens differ from the small specimen of Henne's type from Booby Island only in the somewhat smaller size of the leaves.

According to notes by Messrs. Bell and Boorman, the largest of the few trees, growing near "Wentworth's Hut" in the National Park, attains a trunk diameter of about 5 feet, with gnarled spreading branches, and is probably considerably over 100 years old. The leaves are deciduous, but the trees remain bare only a few weeks in the year before the appearance of the new leaves. The ripe receptacles are reddish, spotted with white. Amongst the New South Wales species of *Ficus*, it is most nearly allied to *F. Cunninghamii*, Miq., with which it has also the deciduous leaves in common, but from which it is easily distinguished by the larger and pedunculate receptacles, and by the shape of the leaves.

CYPERACEÆ.

CYPERUS LAEVIGATUS, Linn.

Manning River (E. Cheel: December, 1899).

New for New South Wales. An almost cosmopolitan species found chiefly in maritime districts, and recorded in Mueller's 'Second Census' only from West Australia, although we have South Australian specimens from Port Lincoln and Mt. Lyndhurst.

The Manning River specimens belong to the form with very few (1 to 3) pale coloured spikelets, and closely resemble some European specimens; they are less rigid than all West Australian specimens we have seen, with nuts sometimes nearly as long as the glumes.

UNCINIA TENELLA, R.Br.

Katoomba, Blue Mountains (A. A. Hamilton; December, 1901); Mt. Wilson (Jesse Gregson; April, 1902).

The Australian species of *Uncinia* are all southern plants, abounding in the alpine districts of Victoria and Tasmania.

Mt. Wilson is the most northern locality recorded for the genus in Australia, with the exception of *Uncinia debilior*, F.v.M., from summit of Mt. Gower, Lord Howe Island.

Note.—It is to be understood that the localities given in this series of papers are in New South Wales, unless otherwise stated.